row blackish lines. The first of these is sub-basal, irregularly sinuous, produced on the disc; the second is regularly scalloped, interspaceally waved, and runs from apical third to internal margin. The wide median space has a more purely whitish ground, while the wing everywhere is thickly dusted with dusky cells. The usual discal mark consists of two superposed white spots duskily ringed. Hind wings of the same gray with the disc bright rose color, enclosing a large round black discal spot and outwardly limited by a faint mesial band visible towards anal margin. Beneath of the same gray, with the round black discal spots repeated on both wings; the primaries alone are rose color at base, and there is a trace of a common extra-mesial band. Body gray with the sides of the abdomen tinged with roseate.

Expanse, & 21/8 inch.; & 3 inch.

Anisota Heiligbrodti, which is named for its discoverer, approaches certain southern species in form, which have been referred by Dr. Boisduval to Adelocephala.

## NEW SPECIES OF ORTHOPTERA.

# BY G. M. DODGE, GLENCOE, DODGE CO., NEBRASKA.

# Caloptenus angustipennis, n. sp.

General color light brown. Upper part of pronotum and hind femora with a reddish tinge. Face sometimes mottled. Antennæ light brown infuscated apically. The usual black band behind the eye broad and distinct, and reaching last division of pronotum, bounded below by a narrower white stripe. A broad white stripe from base of elytra connects with a white stripe at insertion of posterior femora, forming a right angle. Outside of hind femora is crossed by two indistinct dusky bands that extend upon upper edge. Lower sulcation reddish. Knees black. Hind tibiæ blue. Elytra light brown with very small black spots in the disk.

Frontal costa depressed at ocellus. Head but slightly elevated above pronotum. Foveola of vertex scarcely depressed. Carinæ of pronotum nearly obsolete; the median cut by three transverse incisions. Hind lobe of pronotum slightly rugulose. Elytra extending beyond abdomen, unusually narrow.  $\mathcal{J}$  cerci small, narrow, straight, tip rounded and sulcate. Tip of abdomen notched, as in *C. spretus*, but the notch is wider. Length  $\mathcal{Q}, .95$ ;  $\mathcal{J}, .90$  inch. Elytra  $\mathcal{Q}, .75$ ;  $\mathcal{J}, .70$  inch. Hind femora  $\mathcal{Q}, .56$ ;  $\mathcal{J}, .50$  inch.

Banks of the Elkhorn River, Dodge County, Nebraska. August and September.

#### Caloptenus volucris, n. sp.

Head unusually large. Frontal costa slightly depressed at ocellus, broadening below. Punctate above ocellus. Pronotum slightly constricted in middle. Median carinæ distinct, but slight; cut by last transverse incision. Lateral carinæ distinct only on posterior part of pronotum. Elytra longer than abdomen. Posterior femora equals abdomen in length. In dried specimen the face is brown, occiput and pronotum a shade lighter. The usual black stripe behind eye to last lobe of pronotum, and testaceous spot below. Elytra light brown, darkest at base, unspotted. Oblique vellow stripe on side of body. All the femora reddish yellow above, the posteriors black at tip, with three brownish patches on upper edge. Hind tibiæ blue with black spines, and narrow, black, basal annulation. Under side of thorax and abdomen vellow. Antennæ red, darker at tips. Terminal segment of abdomen pointed. Cerci broad at base, rapidly tapering to the middle. The apical half scarcely tapering and ending in a blunt point. Length 3, .85 inch. Elytra &, .70 inch. Hind femora, .45 inch.

Rare and local so far as observed. Habitat, Glencoe, Neb. Time of appearance, September. This species is very close to *Pezotettix autumnalis* Dodge, and differs chiefly in the length of the elytra and wings.

## Caloptenus plumbum, n. sp.

Frontal costa sulcate only at ocellus. Vertex slightly sulcate. Median carina of pronotum distinct, cut about the middle by last transverse furrow. Hind border of pronotum angled. Elytra and wings extend beyond the abdomen. Cerci broadest at base and straight until near the apex, when they bend upward—the upper side with a gentle curve, the lower making an obtuse angle— and end in a blunt point. Tip of abdomen rounded.

Color dark inclining to blue. Pronotum with a red, longitudinal

median stripe. Black band behind eye, broadest on pronotum, ending at last sulcus. Yellow spots behind the eye on both sides of black stripe and below the same on side of pronotum. Cheeks bordered behind with yellow. Sometimes face yellow, mottled with blue. A yellow spot at base of antennæ, and a yellow stripe following the lateral carinæ of pronotum on hind lobe, runs obliquely across base of elytra to insertion of hind femora. Elytra brown, with a few dusky dots along the disk. Wings tinged with blue. Upper outside face of hind femora dark blue, the upper edge crossed by the usual dark bands. Hind tibiæ red with black spines. Antennæ light red. Entire under side of insect yellow.

Length of body  $\mathcal{L}$ , 1.00 inch.;  $\mathcal{J}$ , .85 inch. Of hind femora, male and female, 0.50 inch. Elytra  $\mathcal{J}$ , .75;  $\mathcal{L}$ , .80 inch.

Two  $\mathcal{J}$ , four  $\mathcal{Q}$ . Found in low grounds during the month of Sept., at Glencoe, Nebraska. Possibly a local variety of *femur-rubrum*.

#### Pezotettix abditum, n. sp.

Medium size. Frontal costa punctured, depressed at ocellus. Vertex sulcate. Occiput faintly carined. Median carina of pronotum slight, cut by last transverse incision. Lateral carinae obtuse. Elytra short, oval, pointed. Last segment of male abdomen acuminate. Cerci short, broad at base, of equal width from middle to apex. Tip broadly rounded.

General color dark brown. Antennæ red, darker at apex, sides of face and pronotum yellow. The usual black stripe behind the eye; narrow on pronotum and ending at last sulcus. Elytra dark brown, spotted obscurely and irregularly with black. Hind femora dusky without, with three indistinct black bands that cross over the upper edge and appear on the inside, the one nearest the knee usually broadest and crossing the inner face. Inside and below yellow. Hind tibiae red, spines black. Under side of whole insect bright yellow.

Length of body  $\mathcal{Q}$ , .70 inch.;  $\mathcal{J}$ , .65 inch. Elytra  $\mathcal{Q}$ , .27 inch.;  $\mathcal{J}$ , .23 inch. Hind femora  $\mathcal{Q}$ , .45 inch.;  $\mathcal{J}$ , .40 inch.

Three  $\mathcal{D}$ , three  $\mathcal{J}$ . Taken at Glencoe, Nebraska, where it is usually abundant in August. It occurs upon hill sides, near damp ground, among the rank herbage common in such situations.